



NORLITE, LLC

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November 7, 2013

Ms. Nancy Baker
Deputy Regional Permit Administrator
New York State Department of Environmental Conservation
Region 4
1130 North Westcott Road
Schenectady, NY 12306-2014

RETURN RECEIPT REQUESTED VIA EMAIL

Mr. Kenneth Eng
Air Compliance Branch
United States Environmental Protection Agency
Region 2
290 Broadway
New York, NY 10007-1866

RETURN RECEIPT REQUESTED VIA EMAIL

Re: Norlite Corporation-MACT Excessive Exceedances Report
Kiln 1: 10/14/13 – 11/04/13
Kiln 2: 10/14/13 – 11/04/13

Dear Sir/Madam:

In accordance with 40 CFR 63.1206(c)(3)(vi), the Norlite, LLC (Norlite) is submitting an "Excessive Exceedance Report" for the timeframe of 10/14/13 thru 11/04/13. The attached document explains each of the "malfunctions" for Kilns One and Two.

The results of the investigation concluded a majority of the waste feed cutoffs were a result of the 1 second time delay associated with the rear chamber pressure. These cutoffs were attributable to malfunctioning valves on the primary air system which creates the draft for the rear chamber system. New valves were installed on the primary air system during a kiln shutdown which occurred on 10/09/13 to 10/12/13. The valves are used to balance the amount of air drawn from the rear chamber of the kiln, the vent system for the Fuel Farm, and fresh air to maintain proper LEL levels when Fuel Farm operations are underway. The new valves malfunctioned by not closing completely and binding during operation. The very tight tolerance for these valves made proper installation difficult. Ultimately, the manufacture of the valves took them apart once because of an alignment issue and then again on a later date because of incorrectly sized gasket material which prevented the valves from closing properly. It took several days of troubleshooting with Norlite staff and the manufacture to find the resolution of incorrectly sized gasket material. Once the gasket material was changed, only a difference of a few millimeters, the valves operated correctly. There was one instance in which the duct work for the Kiln 1 rear chamber was partially plugged with dust which was cleared. During a Kiln 1 shutdown on 11/06/13, the rear chamber seals were inspected and replaced to ensure a tightly sealed system.

Norlite has been working to resolve stack gas span cutoffs in general for almost a year. Norlite has been working with the Department to install a new optical flow technology to monitor stack gas flow rate. A test unit has been installed on Kiln 1 and RATA tested to obtain additional information to be used in future calculations. Norlite is working to have the unit in Kiln 1 completely certified and approved for operation by the Fall of 2013. Before the unit can be certified and officially used at the kiln, Norlite and the Department must first work several operational parameters for the monitoring device. Norlite has

DCL: 2413



NORLITE, LLC

presented data which was collected when the optical flow sensor had RATA testing done on it to start the discussion for these operational parameters. This data is being compared with RATA data collected at the same time on the current stack gas flow measuring technology. After final approval is given for the unit on Kiln 1, Norlite will install a unit on Kiln 2 with an expedited schedule for completion which will hopefully see the unit in certified operation by late Fall or early Winter of 2013.

Norlite has also been working with the Department to improve LGF delivery and handling at the kilns to address these types of cutoffs. The Department has conditionally approved Norlite's plan to remove the minimum LLGF Line Pressure requirement, allow a positive displacement pump to be used for fuel flow control, and allow the use of a recirculation line for use during times when off LGF. The Department has requested a six month study be conducted without a minimum LLGF Line Pressure requirement. The study has been underway since May 01, 2103 and will be completed on October 31, 2013. Norlite is continuing to search for a positive displacement pump which will allow variable speed control, have tight pump tolerance, and have suitable reliability for long term use. Norlite will have a pump in place sooner but no later than December of 2013. Norlite will submit a final report to the Department in December 2013 detailing the findings from the study without a minimum LLGF Line Pressure. Norlite is hopeful to have final approval from the Department early 2014 for the positive displacement pump which is installed and for the final removal of the LLGF Line Pressure requirement. To further help develop a suitable fuel delivery system at the kilns, Norlite has enlisted the help of SPEC Engineering which specializes in process engineering and development. With addition of SPEC Engineering and the combustion expertise from Arcadis, Norlite is very hopeful to have a fully functional fuel delivery system at the kilns which will help reach a steady state operation.

All of the malfunctions that occurred were consistent with our Startup, Shutdown and Malfunction Plan (SSMP). As approved by the NYSDEC on February 6, 2006, these reports are being sent electronically.

Should you have any questions regarding this letter, please contact me at (518) 235-0401 or email at: tom.vanvranken@tradebe.com.

Sincerely,

Thomas Van Vranken

Thomas Van Vranken
Environmental Manager

Attachments

ecc: Don Spencer, NYDEC – R4 w/attachments
James Lansing, NYSDEC – CO w/attachments
Joseph Hadersbeck, NYSDEC – R4w/attachments
Jim Quinn, NYSDEC – R4 w/attachments
Tita LaGrimas – Tradebe



NORLITE, LLC
MACT EXCEEDANCE REPORT - KILN 1
10/14/13 - 11/04/13

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
10/14/2013	4:23:38	10/14/2013	4:33:01	0:09:23	214	Malfunction	The LGF Pump Pressure Suddenly Decreased Causing the Pump to Surge and then Shutoff Which Caused the Instantaneous Upper Instrument Setpoint to be Reached for LGF Flow Span	LGF Flow	Span	The LGF Pump Was Restarted and the Pump Pressure Adjusted to Maintain Pump Operation
10/14/2013	11:51:41	10/14/2013	11:52:42	0:01:01	215	Malfunction	New Valves Were Installed on the Fan System Which Creates the Draft for the Rear Chamber System, One of the New Valves Malfunctioned And Remained partially Open Causing A Loss of Draft	Back Chamber Pressure, 1 Second Delay	Opl	An I&E Technician Was Able to Free the Valve and Re-Establish Operation. The Valve Motor Was Inspected For Faulty Operation Also
10/15/2013	16:34:09	10/15/2013	16:52:00	0:17:51	216	Malfunction	New Valves Were Installed on the Fan System Which Creates the Draft for the Rear Chamber System, One of the New Valves Malfunctioned And Remained partially Open Causing A Loss of Draft	Back Chamber Pressure HRA	Opl	The Valve Vendor Was Called In to Inspect the Unit & Found A Minor Alignment Problem Which Prevented Proper Operation
10/15/2013	20:48:53	10/15/2013	20:52:52	0:03:59	217	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water Droplets From the Mist Pad Hitting the Probe	Stack Gas Flow Rate	Span	The ID Fan Speed Was Reduced to Help Reduce Water Droplet Movement
10/15/2013	21:01:38	10/15/2013	21:25:55	0:24:17	218	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water Droplets From the Mist Pad Hitting the Probe	Stack Gas Flow Rate	Span	The ID Fan Speed Was Reduced to Help Reduce Water Droplet Movement
10/15/2013	21:38:40	10/15/2013	21:39:59	0:01:19	219	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water Droplets From the Mist Pad Hitting the Probe	Stack Gas Flow Rate	Span	The ID Fan Speed Was Reduced to Help Reduce Water Droplet Movement
10/15/2013	21:52:11	10/15/2013	21:52:50	0:00:39	220	Malfunction	New Valves Were Installed on the Fan System Which Creates the Draft for the Rear Chamber System, One of the New Valves Malfunctioned And Remained partially Open Causing A Loss of Draft	Back Chamber Pressure, 1 Second Delay	Opl	The Valve Vendor Was Called In to Inspect the Unit & Found A Minor Alignment Problem Which Prevented Proper Operation
10/16/2013	4:13:04	10/16/2013	4:31:37	0:18:33	221	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water Droplets From the Mist Pad Hitting the Probe	Stack Gas Flow Rate		The ID Fan Speed Was Reduced to Help Reduce Water Droplet Movement
10/16/2013	15:03:30	10/16/2013	15:03:50	0:00:20	222	Malfunction	New Valves Were Installed on the Fan System Which Creates the Draft for the Rear Chamber System, One of the New Valves Malfunctioned And Remained partially Open Causing A Loss of Draft	Back Chamber Pressure, 1 Second Delay		The Valve Vendor Was Called In to Inspect the Unit & Found A Minor Alignment Problem Which Prevented Proper Operation



NORLITE, LLC
MACT EXCEEDANCE REPORT - KILN 1
10/14/13 - 11/04/13

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
10/16/2013	18:25:09	10/16/2013	18:25:47	0:00:38	223	Malfunction	New Valves Were Installed on the Fan System Which Creates the Draft for the Rear Chamber System, One of the New Valves Malfunctioned And Remained partially Open Causing A Loss of Draft	Back Chamber Pressure, 1 Second Delay		The Valve Vendor Was Called In to Inspect the Unit & Found A Minor Alignment Problem Which Prevented Proper Operation
10/16/2013	18:25:54	10/16/2013	18:26:16	0:00:22	224	Malfunction	New Valves Were Installed on the Fan System Which Creates the Draft for the Rear Chamber System, One of the New Valves Malfunctioned And Remained partially Open Causing A Loss of Draft	Back Chamber Pressure, 1 Second Delay		The Valve Vendor Was Called In to Inspect the Unit & Found A Minor Alignment Problem Which Prevented Proper Operation
10/17/2013	5:47:04	10/17/2013	5:47:26	0:00:22	225	Malfunction	The Ducon Retained Water Due to Scale Plugging the Recirculation Line Which Added Water to the System and Caused the Instantaneous Upper Instrument Setpoint to be Reached for Stack Gas Span	Stack Gas Flow Rate	Span	The Ducon Drain Line Was Removed and the Port Cleared. The Scrubber Walls Were Scraped to Remove Additional Scale
10/17/2013	17:35:24	10/17/2013	17:53:56	0:18:32	226	Malfunction	The Ducon Retained Water Due to Scale Plugging the Recirculation Line Which Added Water to the System and Caused the Instantaneous Upper Instrument Setpoint to be Reached for Stack Gas Span	Stack Gas Flow Rate	Span	The Ducon Drain Line Was Removed and the Port Cleared. The Scrubber Walls Were Scraped to Remove Additional Scale
10/17/2013	18:02:35	10/17/2013	18:03:13	0:00:38	227	Malfunction	After Correcting the Alignment of the Valve, the Valve Motor Movement Calibration Was Off Because of the Adjustments	Back Chamber Pressure, 1 Second Delay	Opl	The Valve Vendor Recalibrated the Valve Motor for Proper Operation
10/17/2013	18:06:18	10/17/2013	18:08:01	0:01:43	228	Malfunction	The Ducon Retained Water Due to Scale Plugging the Recirculation Line Which Added Water to the System and Caused the Instantaneous Upper Instrument Setpoint to be Reached for Stack Gas Span	Stack Gas Flow Rate	Span	The Ducon Drain Line Was Removed and the Port Cleared. The Scrubber Walls Were Scraped to Remove Additional Scale
10/17/2013	18:09:40	10/17/2013	18:15:32	0:05:52	229	Malfunction	The Ducon Retained Water Due to Scale Plugging the Recirculation Line Which Added Water to the System and Caused the Instantaneous Upper Instrument Setpoint to be Reached for Stack Gas Span	Stack Gas Flow Rate	Span	The Ducon Drain Line Was Removed and the Port Cleared. The Scrubber Walls Were Scraped to Remove Additional Scale
10/17/2013	23:11:55	10/17/2013	23:12:56	0:01:01	230	Malfunction	The Ducon Retained Water Due to Scale Plugging the Recirculation Line Which Added Water to the System and Caused the Instantaneous Upper Instrument Setpoint to be Reached for Stack Gas Span	Stack Gas Flow Rate	Span	The Ducon Drain Line Was Removed and the Port Cleared. The Scrubber Walls Were Scraped to Remove Additional Scale



NORLITE, LLC
MACT EXCEEDANCE REPORT - KILN 1
10/14/13 - 11/04/13

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
10/18/2013	1:43:23	10/18/2013	1:52:24	0:09:01	231	Malfunction	The Ducon Retained Water Due to Scale Plugging the Recirculation Line Which Added Water to the System and Caused the Instantaneous Upper Instrument Setpoint to be Reached for Stack Gas Span	Stack Gas Flow Rate	Span	The Ducon Drain Line Was Removed and the Port Cleared. The Scrubber Walls Were Scraped to Remove Additional Scale
10/18/2013	2:39:58	10/18/2013	2:49:42	0:09:44	232	Malfunction	The Ducon Retained Water Due to Scale Plugging the Recirculation Line Which Added Water to the System and Caused the Instantaneous Upper Instrument Setpoint to be Reached for Stack Gas Span	Stack Gas Flow Rate	Span	The Ducon Drain Line Was Removed and the Port Cleared. The Scrubber Walls Were Scraped to Remove Additional Scale
10/18/2013	3:18:05	10/18/2013	4:50:43	1:32:38	233	Malfunction	The Ducon Retained Water Due to Scale Plugging the Recirculation Line Which Added Water to the System and Caused the Instantaneous Upper Instrument Setpoint to be Reached for Stack Gas Span	Stack Gas Flow Rate	Span	The Ducon Drain Line Was Removed and the Port Cleared. The Scrubber Walls Were Scraped to Remove Additional Scale
10/18/2013	12:00:16	10/18/2013	12:13:58	0:13:42	234	Malfunction	The Ducon Retained Water Due to Scale Plugging the Recirculation Line Which Added Water to the System and Caused the Instantaneous Upper Instrument Setpoint to be Reached for Stack Gas Span	Stack Gas Flow Rate	Span	The Ducon Drain Line Was Removed and the Port Cleared. The Scrubber Walls Were Scraped to Remove Additional Scale
10/18/2013	14:27:14	10/18/2013	14:28:27	0:01:13	235	Malfunction	While Controlling Flow Rate With Valves A Fuel Surge Occurred Which Caused A Pressure Pulse In the Kiln System Which Affected the Rear Chamber Pressure 1 Second Delay	Back Chamber Pressure, 1 Second Delay	Opl	The Kiln Was Placed On Oil and the Fuel Valve Flushed to Clear the LGF Fuel Valve
10/18/2013	18:20:45	10/18/2013	18:21:53	0:01:08	236	Malfunction	While Controlling Flow Rate With Valves A Fuel Surge Occurred Which Caused A Pressure Pulse In the Kiln System Which Affected the Rear Chamber Pressure 1 Second Delay	Back Chamber Pressure, 1 Second Delay	Opl	The Kiln Was Placed On Oil and the Fuel Valve Flushed to Clear the LGF Fuel Valve
10/18/2013	19:40:58	10/18/2013	19:53:29	0:12:31	237	Malfunction	The Rear Chamber Fresh Air Valve Was Struck By A Piece of Mobile Equipment Which Caused It to Open A Decrease the Draft in the Rear Chamber	Back Chamber Pressure HRA	Opl	After Investigating the Cause in Decreased Draft the Trunnion Mechanic Closed the Fresh Air Valve
10/18/2013	22:46:07	10/18/2013	22:54:56	0:08:49	238	Malfunction	A Fuel Surge Occurred When the LGF Pump Failed Causing a Pressure Surge in the Kiln Which Affected the Rear Chamber Pressure 1 Second Delay	Back Chamber Pressure, 1 Second Delay	Opl	The Kiln Was Switched to A Different Tank and Fuel Flow Re-Established
10/19/2013	2:23:58	10/19/2013	4:30:34	2:06:36	239	Malfunction	A Test of the Draft System Showed A Decreased Draft. The System Was Inspected for Blockages Which Found An Elbow in the Duct Work 75% Blocked With Dust	Back Chamber Pressure HRA	Opl	The Plant Mechanics Removed the Elbow and Cleared the Dust Blockage on 10/21/13



NORLITE, LLC
MACT EXCEEDANCE REPORT - KILN 1
10/14/13 - 11/04/13

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
10/19/2013	10:56:56	10/19/2013	11:19:22	0:22:26	240	Malfunction	A Test of the Draft System Showed A Decreased Draft. The System Was Inspected for Blockages Which Found An Elbow in the Duct Work 75% Blocked With Dust	Back Chamber Pressure HRA	Opl	The Plant Mechanics Removed the Elbow and Cleared the Dust Blockage on 10/21/13
10/20/2013	19:49:39	10/20/2013	19:59:46	0:10:07	241	Malfunction	A Test of the Draft System Showed A Decreased Draft. The System Was Inspected for Blockages Which Found An Elbow in the Duct Work 75% Blocked With Dust	Back Chamber Pressure, 1 Second Delay	Opl	The Plant Mechanics Removed the Elbow and Cleared the Dust Blockage on 10/21/13
10/21/2013	18:38:49	10/21/2013	18:46:42	0:07:53	242	Malfunction	A Test of the Draft System Showed A Decreased Draft. The System Was Inspected for Blockages Which Found An Elbow in the Duct Work 75% Blocked With Dust	Back Chamber Pressure HRA	Opl	The Plant Mechanics Removed the Elbow and Cleared the Dust Blockage on 10/21/13
10/21/2013	19:34:49	10/21/2013	19:35:36	0:00:47	243	Malfunction	A Test of the Draft System Showed A Decreased Draft. The System Was Inspected for Blockages Which Found An Elbow in the Duct Work 75% Blocked With Dust	Back Chamber Pressure, 1 Second Delay	Opl	The Plant Mechanics Removed the Elbow and Cleared the Dust Blockage on 10/21/13
10/22/2013	0:59:03	10/22/2013	1:00:20	0:01:17	244	Malfunction	The Data Does Not Suggest A True Flow Rate Increase Occurred But Rather An Air Bubble Caused the MicroMotion to Read Inaccurately Causing the Instantaneous Upper Instrument Setpoint to be Reached for LGF Flow Span	LGF Flow	Span	The LGF Line Was Flushed to Help Push Any Air Bubbles Out of the MicroMotion
10/22/2013	12:00:21	10/22/2013	12:00:58	0:00:37	245	Malfunction	The LGF Ball Valve Started to Plugged And Then Suddenly Cleared Causing the Instantaneous Upper Instrument Setpoint to be Reached for LGF Flow Span	Back Chamber Pressure, 1 Second Delay	Opl	The LGF Ball Valve Was Cleared and Proper Flow Established
10/23/2013	15:46:43	10/23/2013	16:52:13	1:05:30	246	Malfunction	The Primary Air System Fresh Air Valve Stuck Open Which Caused A Decrease In Rear Chamber Pressure	Back Chamber Pressure HRA	Opl	I&E Was Able to Partially Close the Valve. The Valve Was Taken Apart Again on 10/26/13
10/23/2013	23:57:16	10/24/2013	0:20:51	0:23:34	247	Malfunction	The Stack Gas Probe Was Dirty Which Caused A High Reading Which Caused the Instantaneous Upper Instrument Setpoint to be Reached for Stack Gas Span	Stack Gas Flow Rate	Span	I&E Cleaned and Inspected the Stack Gas Probe for Damage
10/24/2013	0:41:34	10/24/2013	2:25:51	1:44:17	248	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water Droplets From the Mist Pad Hitting the Probe	Stack Gas Flow Rate	Span	The ID Fan Speed Was Reduced to Help Reduce Water Droplet Movement
10/25/2013	10:23:39	10/25/2013	10:26:53	0:03:14	249	Malfunction	The Concentration of the Soda Ash Solution Was Much Higher Than Usual When Added to the Scrubber Tank Which Caused the Instantaneous Upper Instrument Setpoint to be Reached for Scrubber pH Span	Scrubber pH	Span	The Pump Which Supplies the Water for the Soda Ash Solution Stopped, It Was Restarted and Remained Operational



NORLITE, LLC
MACT EXCEEDANCE REPORT - KILN 1
10/14/13 - 11/04/13

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
10/25/2013	10:32:38	10/25/2013	10:33:11	0:00:33	250	Malfunction	The Concentration of the Soda Ash Solution Was Much Higher Than Usual When Added to the Scrubber Tank Which Caused the Instantaneous Upper Instrument Setpoint to be Reached for Scrubber pH Span	Scrubber pH	Span	The Pump Which Supplies the Water for the Soda Ash Solution Stopped, It Was Restarted and Remained Operational
10/26/2013	2:51:34	10/26/2013	2:53:25	0:01:51	251	Malfunction	The Primary Air System Fresh Air Valve Stuck Open Which Caused A Decrease In Rear Chamber Pressure	Back Chamber Pressure HRA	Opl	I&E Was Able to Partially Close the Valve. The Valve Was Taken Apart Again on 10/26/13
10/26/2013	3:33:40	10/26/2013	3:35:19	0:01:39	252	Malfunction	The Instantaneous Upper Instrument Setpoint Was Reached for Scrubber pH Span Due to the pH Probes Being Dirty	Scrubber pH	Span	I&E Cleaned and Calibrated the pH Probes
10/26/2013	4:22:44	10/26/2013	4:23:23	0:00:39	253	Malfunction	The Primary Air System Fresh Air Valve Stuck Open Which Caused A Decrease In Rear Chamber Pressure	Back Chamber Pressure, 1 Second Delay	Opl	I&E Was Able to Partially Close the Valve. The Valve Was Taken Apart Again on 10/26/13
10/26/2013	8:21:35	10/26/2013	8:30:20	0:08:45	254	Malfunction	The Primary Air System Fresh Air Valve Stuck Open Which Caused A Decrease In Rear Chamber Pressure	Back Chamber Pressure, 1 Second Delay	Opl	I&E Was Able to Partially Close the Valve. The Valve Was Taken Apart Again on 10/26/13
10/26/2013	12:24:22	10/26/2013	12:29:03	0:04:41	255	Malfunction	I&E Pulled the Probe Wires for Cleaning Before the Kiln Operator Had Gone off LGF Which Caused the Probe to Fault and Cause the Instantaneous Upper Instrument Setpoint to be Reached for Stack Gas Span	Stack Gas Flow Rate	Span	I&E Cleaned and Inspected the Stack Gas Probe for Damage/The I&E Tech Was Instructed to Contact the Kiln Operator Before Cleaning the Probe
10/27/2013	23:46:31	10/28/2013	0:03:48	0:17:16	256	Malfunction	The Instantaneous Upper Instrument Setpoint Was Reached for Scrubber pH Span Due to the pH Probes Being Dirty	Scrubber pH	Span	I&E Cleaned and Calibrated the pH Probes
10/28/2013	14:46:26	10/28/2013	14:47:40	0:01:14	257	Malfunction	I&E and the Primary Air Vendor Took Apart the Valve System, Inspected It For Damage, and Reassembled It Earlier In the Day But the Valve Still Continued to Hang Up and Not Close Completely	Back Chamber Pressure HRA	Opl	I&E And the Primary Air Valve Vendor Continued to Troubleshoot the System
10/28/2013	14:48:27	10/28/2013	14:55:02	0:06:35	258	Malfunction	I&E and the Primary Air Vendor Took Apart the Valve System, Inspected It For Damage, and Reassembled It Earlier In the Day But the Valve Still Continued to Hang Up and Not Close Completely	Back Chamber Pressure, 1 Second Delay	Opl	I&E And the Primary Air Valve Vendor Continued to Troubleshoot the System
10/28/2013	16:42:43	10/28/2013	16:43:09	0:00:26	259	Malfunction	I&E and the Primary Air Vendor Took Apart the Valve System, Inspected It For Damage, and Reassembled It Earlier In the Day But the Valve Still Continued to Hang Up and Not Close Completely	Back Chamber Pressure, 1 Second Delay	Opl	I&E And the Primary Air Valve Vendor Continued to Troubleshoot the System



NORLITE, LLC
MACT EXCEEDANCE REPORT - KILN 1
10/14/13 - 11/04/13

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
10/28/2013	16:43:13	10/28/2013	16:47:49	0:04:36	260	Malfunction	I&E and the Primary Air Vendor Took Apart the Valve System, Inspected It For Damage, and Reassembled It Earlier In the Day But the Valve Still Continued to Hang Up and Not Close Completely	Back Chamber Pressure, 1 Second Delay	Opl	I&E And the Primary Air Valve Vendor Continued to Troubleshoot the System
10/28/2013	16:48:33	10/28/2013	16:49:08	0:00:35	261	Malfunction	I&E and the Primary Air Vendor Took Apart the Valve System, Inspected It For Damage, and Reassembled It Earlier In the Day But the Valve Still Continued to Hang Up and Not Close Completely	Back Chamber Pressure, 1 Second Delay	Opl	I&E And the Primary Air Valve Vendor Continued to Troubleshoot the System
10/28/2013	16:50:09	10/28/2013	16:51:14	0:01:05	262	Malfunction	I&E and the Primary Air Vendor Took Apart the Valve System, Inspected It For Damage, and Reassembled It Earlier In the Day But the Valve Still Continued to Hang Up and Not Close Completely	Back Chamber Pressure, 1 Second Delay	Opl	I&E And the Primary Air Valve Vendor Continued to Troubleshoot the System
10/29/2013	3:36:26	10/29/2013	3:36:52	0:00:26	263	Malfunction	I&E and the Primary Air Vendor Took Apart the Valve System, Inspected It For Damage, and Reassembled It Earlier In the Day But the Valve Still Continued to Hang Up and Not Close Completely	Back Chamber Pressure, 1 Second Delay	Opl	I&E And the Primary Air Valve Vendor Continued to Troubleshoot the System
10/29/2013	4:02:03	10/29/2013	4:19:42	0:17:39	264	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water Droplets From the Mist Pad Hitting the Probe	Stack Gas Flow Rate	Span	The ID Fan Speed Was Reduced to Help Reduce Water Droplet Movement
10/29/2013	4:37:23	10/29/2013	4:40:08	0:02:45	265	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water Droplets From the Mist Pad Hitting the Probe	Stack Gas Flow Rate	Span	The ID Fan Speed Was Reduced to Help Reduce Water Droplet Movement
10/29/2013	5:19:59	10/29/2013	5:20:28	0:00:29	266	Malfunction	After Continued Troubleshooting and Inspecting of the System, It Was Determined the Gasket Sealing Material Was Several Fractions of An Inch Too Thick Which Prevented the Valve from Closing Completely	Back Chamber Pressure, 1 Second Delay	Opl	The Primary Air Valve Vendor Replaced the Gasket Material With Something Thinner Which Allowed the Valve to Close
10/29/2013	14:55:14	10/29/2013	14:56:01	0:00:47	267	Malfunction	After Continued Troubleshooting and Inspecting of the System, It Was Determined the Gasket Sealing Material Was Several Fractions of An Inch Too Thick Which Prevented the Valve from Closing Completely	Back Chamber Pressure, 1 Second Delay	Opl	The Primary Air Valve Vendor Replaced the Gasket Material With Something Thinner Which Allowed the Valve to Close
10/29/2013	14:56:27	10/29/2013	14:56:56	0:00:29	268	Malfunction	After Continued Troubleshooting and Inspecting of the System, It Was Determined the Gasket Sealing Material Was Several Fractions of An Inch Too Thick Which Prevented the Valve from Closing Completely	Back Chamber Pressure, 1 Second Delay	Opl	The Primary Air Valve Vendor Replaced the Gasket Material With Something Thinner Which Allowed the Valve to Close



NORLITE, LLC
MACT EXCEEDANCE REPORT - KILN 1
10/14/13 - 11/04/13

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
10/29/2013	21:10:32	10/29/2013	21:11:12	0:00:40	269	Malfunction	After Continued Troubleshooting and Inspecting of the System, It Was Determined the Gasket Sealing Material Was Several Fractions of An Inch Too Thick Which Prevented the Valve from Closing Completely	Back Chamber Pressure, 1 Second Delay	Opl	The Primary Air Valve Vendor Replaced the Gasket Material With Something Thinner Which Allowed the Valve to Close
10/30/2013	3:34:08	10/30/2013	3:34:28	0:00:20	270	Malfunction	After Continued Troubleshooting and Inspecting of the System, It Was Determined the Gasket Sealing Material Was Several Fractions of An Inch Too Thick Which Prevented the Valve from Closing Completely	Back Chamber Pressure, 1 Second Delay	Opl	The Primary Air Valve Vendor Replaced the Gasket Material With Something Thinner Which Allowed the Valve to Close
10/30/2013	11:10:04	10/30/2013	11:14:14	0:04:10	271	Malfunction	After Continued Troubleshooting and Inspecting of the System, It Was Determined the Gasket Sealing Material Was Several Fractions of An Inch Too Thick Which Prevented the Valve from Closing Completely	Back Chamber Pressure HRA	Opl	The Primary Air Valve Vendor Replaced the Gasket Material With Something Thinner Which Allowed the Valve to Close
10/30/2013	18:28:21	10/30/2013	21:28:41	3:00:20	272	Malfunction	The Data Shows the Baghouse Inlet Temperature Was Well Below Any Permit Cutoff Limit. After Inspecting the System A Partially Damaged Wire Caused By Vibration In the Conduit Was Determined to be the Caused of the Instantaneous Upper Instrument Setpoint Being Reached for Baghouse Inlet Temperature Span	Baghouse Inlet Temp.	Span	I&E Conducted the Inspection and Repaired the Partially Damaged Wire
11/1/2013	10:24:23	11/1/2013	10:28:36	0:04:13	273	Malfunction	The LGF Pump Pressure Suddenly Decreased Causing the Pump to Surge and then Shutoff Which Caused the Instantaneous Upper Instrument Setpoint to be Reached for LGF Flow Span	LGF Flow	Span	The LGF Pump Was Restarted and the Pump Pressure Adjusted to Maintain Pump Operation
11/1/2013	16:21:24	11/1/2013	16:23:42	0:02:18	274	Malfunction	The LGF Valve Became Partially Plugged and Then Suddenly Cleared Which Caused A Sudden LGF Flow Increase Which Caused the Instantaneous Upper Instrument Setpoint to be Reached for LGF Flow Span	LGF Flow	Span	The LGF Valve Was Cleared and Proper Flow Established
11/3/2013	7:50:20	11/3/2013	7:55:13	0:04:53	275	Malfunction	Instantaneous Upper Instrument Setpoint Reached for Stack Gas Span Due to Water Droplets From the Mist Pad Hitting the Probe	Stack Gas Flow Rate	Span	The ID Fan Speed Was Reduced to Help Reduce Water Droplet Movement



NORLITE, LLC
MACT EXCEEDANCE REPORT - KILN 2
10/14/13 - 11/04/13

Start Date	Start Time	End Date	End Time	Downtime	#	Event	Cause	Parameter	Limit	Corrective Action
10/14/2013	3:52:51	10/14/2013	4:22:39	0:29:48	127	Malfunction	The Stack Gas Probe Became Dirty With Soda Ash Solids Which Caused the Instantaneous Upper Instrument Setpoint to be Reached for Stack Gas Span	Stack Gas Flow Rate	Span	I & E Cleaned and Inspected the Probe for Damage
10/14/2013	4:23:42	10/14/2013	4:30:30	0:06:48	128	Malfunction	Controlling LGF Flow Rate With Valves Caused Sudden Flow Rate Increases Which Caused the Instantaneous Upper Instrument Setpoint to be Reached for LGF Flow Span	LGF Flow	Span	The LGF Valve Was Cleared and Proper Flow Rate Established
10/14/2013	11:00:22	10/14/2013	11:15:32	0:15:10	129	Malfunction	The LGF Pump Started Surging Which Caused Sudden Flow Rate Increases, Triggering the Instantaneous Upper Instrument Setpoint to be Reached for LGF Flow Span	LGF Flow	Span	The Kiln Was Switched to a Different Tank So the Fuel Farm Mechanic Could Troubleshoot the Pump
10/16/2013	14:02:32	10/16/2013	14:05:10	0:02:38	130	Malfunction	The Scrubber Recirculation Pump Started Surging Which Caused the Flow Rate to Increase and Cause the Instantaneous Upper Instrument Setpoint to be Reached for Scrubber Recirculation Rate Span	Scrubber Recirc. Rate	Span	The WWTP Mechanic Restricted the Output Valve Slightly to Increase the Back Pressure Which Stopped the Surging
10/19/2013	16:40:17	10/19/2013	16:46:25	0:06:08	131	Malfunction	The Operators Were Controlling Fuel Flow Using Valve Which Caused a Fuel Surge to Occur, Affecting the Frontend Differential Kiln Pressure	Front Kiln Pressure, 1 Second Delay	Opl	Third Party Process Engineers Are Reviewing the Feed System to Provide Operational Improvements
10/21/2013	19:39:27	10/21/2013	19:52:07	0:12:40	132	Malfunction	The Operators Were Controlling Fuel Flow Using Valve Which Caused a Fuel Surge to Occur Causing the Instantaneous Upper Instrument Setpoint to be Reached for LGF Flow Span	LGF Flow	Span	Third Party Process Engineers Are Reviewing the Feed System to Provide Operational Improvements
10/26/2013	6:16:15	10/26/2013	6:16:34	0:00:19	133	Malfunction	The Operators Were Controlling Fuel Flow Using Valve Which Caused a Fuel Surge to Occur, Affecting the Frontend Differential Kiln Pressure	Front Kiln Pressure, 1 Second Delay	Opl	Third Party Process Engineers Are Reviewing the Feed System to Provide Operational Improvements
10/26/2013	6:16:39	10/26/2013	6:16:59	0:00:20	134	Malfunction	The Operators Were Controlling Fuel Flow Using Valve Which Caused a Fuel Surge to Occur, Affecting the Frontend Differential Kiln Pressure	Front Kiln Pressure, 1 Second Delay	Opl	Third Party Process Engineers Are Reviewing the Feed System to Provide Operational Improvements
10/26/2013	8:30:53	10/26/2013	8:32:09	0:01:16	135	Malfunction	The Operators Were Controlling Fuel Flow Using Valve Which Caused a Fuel Surge to Occur, Affecting the Frontend Differential Kiln Pressure	Front Kiln Pressure, 1 Second Delay	Opl	Third Party Process Engineers Are Reviewing the Feed System to Provide Operational Improvements
10/30/2013	23:20:19	10/31/2013	0:22:33	1:02:13	136	Malfunction	The Operators Were Controlling Fuel Flow Using Valve Which Caused a Fuel Surge to Occur, Affecting the Rear Chamber Differential Kiln Pressure	Back Chamber Pressure, 1 Second Delay		Third Party Process Engineers Are Reviewing the Feed System to Provide Operational Improvements